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REVIEW OF "CONVENTIONAL SIGNS FOR HYDROGRAPHIC CHARTS," (Published by Guvms (Main Administration of Naval Forces), 1947)

V. Guretskiy

A new edition of Conventional Signs for Soviet Charts (134 pp, 25 rubles) has been printed and distributed to the departments concerned. Before its appearance, navigators depended on a similar manual published in 1941. This new edition has been considerably revised, altered, and enlarged. Our objective here is to draw the attention of mariners to the chief differences. Mention has also been made of certain questions requiring additional clarification.

The main change in conventional signs in the 1947 edition is the new method of designating the characteristics of colors of lights. We may note these new designations have been printed on charts since 1946.

As previously, the color of a light is shown by the same color on the chart, except for white, which is always represented by yellow. Lights may be shown either in detail, by means of concentric circles, or in abbreviated form, by means of the so-called "rozhki" /literally, "little horn"/, depending on the scale, detail, and purpose of the chart.

The character of the light is represented by altering the thickness and varying the number of concentric circles. It should be remembered that this method reduces the characteristics of different lamps to the same common denominator. Only two thicknesses of circle are used, one millimeter and 0.25 millimeter, approximately. The characteristics of lights are represented by means of these circles in the following manner:

1. One thick circle: fixed light.

2. One thick circle with one thin circle inside it: (a) fixed and flashing lights, (b) fixed and group flashing lights, (c) fixed occulting lights, and (d) fixed group-occulting lights.

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3. One thin circle: occulting and group-occulting lights.

4. Two, three, and four thin circles: group-flashing lights with two, three, and four flashes per group respectively.

5. Five thin circles: (a) flashing lights, (b) group-flashing lights with five more flashes per group, and (c) rotating lights.

6. One thick circle with one thin circle outside it: (a) alternating lights, (b) alternating flashing lights, (c) alternating group-flashing lights, (d) alternating occulting lights, and (e) alternating group-occulting lights.

7. Lights of raido beacons, regardless of their color and character, are always represented by one thick red circle.

8. Lights of floating beacons are shown in the same way as shore lights.

9. Lights of illuminated buoys are shown in the abbreviated way on all maps, i.e., by rozhki.

Another, no less important, alteration is in the method of showing the depth of fairways. For example, the figure 7.0 in parentheses inserted in a break in a dotted fairway line previously meant that the fairway was accessible to vessels drawing up to 7 meters of water. According to the new system of conventional signs, the same marking would mean that 7 meters is the minimum depths of the particular fairway. Similarly, the figure 10.0 in square brackets inserted in a break in the continuous swept fairway line now denotes the depth to which the fairway has been swept, and not the limiting draught of vessels navigating the fairway.

The representation and position of nonlighted navigational marks is also different. The old conventional sign for such a mark was a continuous black triangle, and its position on the chart was considered as being the mid-point of the base. The new sign is a black equilateral triangle with a white circle inside it, and the position of the mark on the chart is the center of the circle, i.e., the center of the triangle.

The representation of dry land has also been changed. This was previously colored yellow over its full width. Now it is represented by filling in the dry strip with dotted lines, closer together at the seaward side, the type of ground and height above sea level being shown.

The above are the most important changes in conventional signs on USSR charts from the navigator's viewpoint. A sound knowledge of them is essential. Other signs remain almost unchanged, but have been considerably supplemented as regards the shore. In this connection they have also been made uniform with those used on topographical maps. Moreover, a new set of signs has been introduced for river charts and atlases.

Every pilot adding to his stock of charts will need to ascertain which conventional signs are used. As we have already pointed out, many charts published in 1946 and 1947 may have the lights represented by the 1947 signs and other objects by the old ones.

We shall now dwell on two examples which bear witness to deficiencies and lack of clarity in the new conventional signs.

One, carried over from the old to the new edition, concerns submarine sound signals. We find representations of the signal, first in the section "Markings on Water," and then in the section "Other Objects." Two completely different markings have the same meaning, and the mariner cannot tell which is to be preferred.

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The other example is of great practical importance. The new conventional signs do not reflect the new system of buoyage in the seas and lakes of the USSR which was introduced in 1947 (before the new signs were published and approved). On the one hand, the new conventional signs include (for No 49) a "telegraph spar buoy" which is not used in the new system of buoyages and must have been abolished. On the other hand, of all the extremely varied and numerous spars and buoys introduced by the new buoyage system, only cardinal spar buoys for natural hazards figure among the new conventional signs. All the other spars and buoys (even the temporary ones pertaining to mine hazard) are absent from the new signs, and the devising of systems and drawings for these signs is left to the pilot himself. Hence, the question arises as to how the chart will indicate to the mariner the numerous types of buoys, so varied in appearance and meaning. Ignorance of the necessary details of surface marks, i.e., the most important part of the chart to the pilot, seems all the more inexcusable in view of the huge range of conventional representations on shore introduced in the new signs. Seafarers will expect the Hydrographic Administration of the Navy to provide a satisfactory solution to this problem.

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